

New Employee Orientation

Orientation for Reliability Dept.

B0Q200 / Hugo SF Tsai

2022/07/18

Copyright and Confidentiality Notice

This presentation and its content is copyright of Wiwynn Corporation. All rights reserved. The content may contain confidential information of Wiwynn Corporation. Any redistribution or reproduction of part or all of the contents in any form is prohibited unless otherwise agreed. The receiving party may not, except with our express written permission, distribute or commercially exploit the content.



公司與部門

B0Q and B0Q200

Copyright and Confidentiality Notice

This presentation and its content is copyright of Wiwynn Corporation. All rights reserved. The content may contain confidential information of Wiwynn Corporation. Any redistribution or reproduction of part or all of the contents in any form is prohibited unless otherwise agreed. The receiving party may not, except with our express written permission, distribute or commercially exploit the content.



公司常用網頁

- **EIP - <https://eip.wiwynn.com/>**
 - 出勤 / 請假 / 加班 / 教育訓練 / 新入手冊
- **PTS - <https://pts.wistron.com/>**
 - 專案文件 / Timesheet
- **PRD – <http://prd.wistron.com/>**
 - KPI Set / Maintain
- **PMCS - <https://pmcs3.wistron.com/>**
 - 借還帳 / 物料查詢

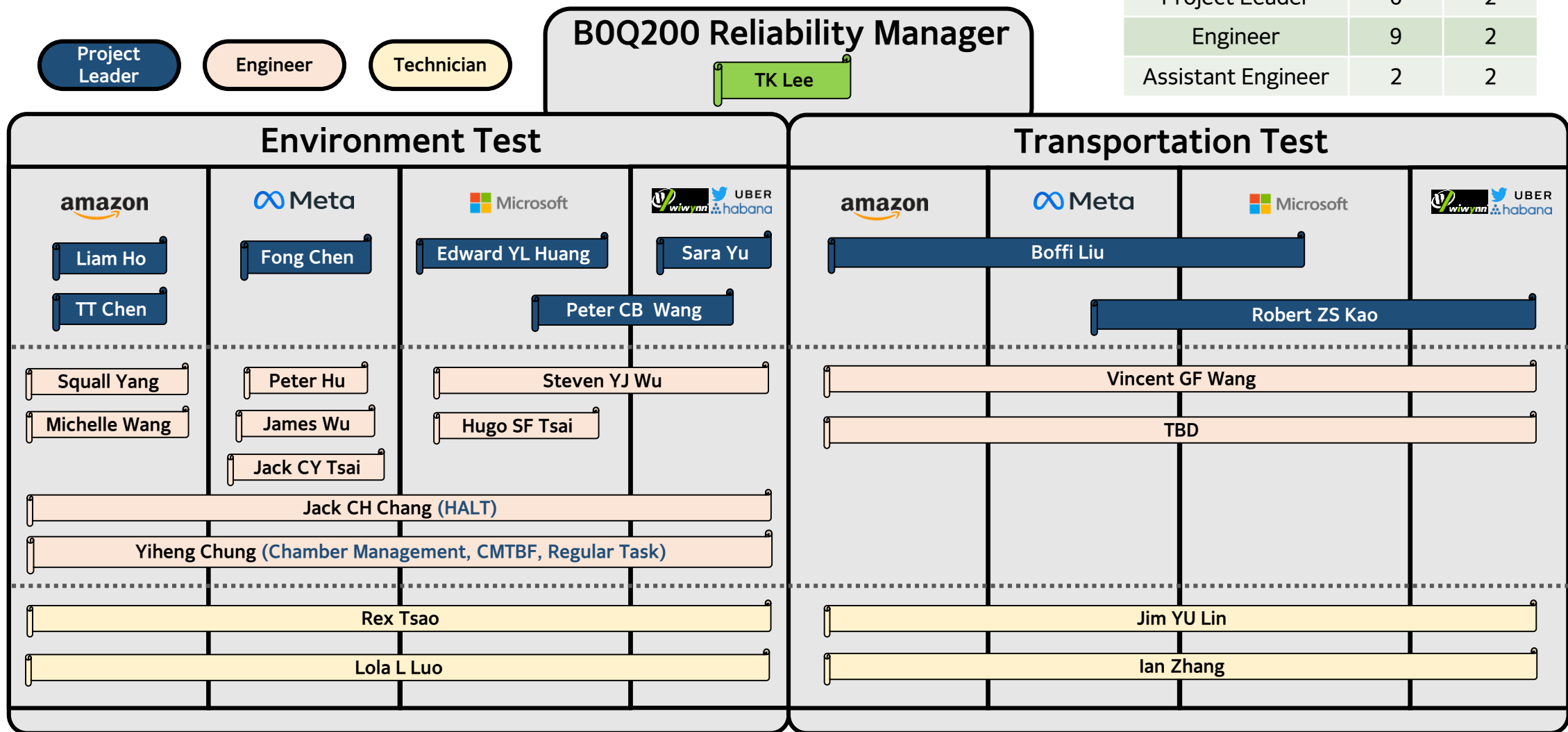
產品客戶別



處級組成

- B0QA00: Automation (for Linux)
- B0Q100: Firmware Validation (BIOS/BMC)
- **B0Q200: Reliability (for All Customers)**
- B0Q300: Facebook (Storage)
- B0Q500: Facebook (Compute)
- B0Q600: Microsoft
- B0Q700: Channel
- B0Q800: Amazon

部門結構



合作實驗室

- **ATC / 暉誠 (七堵) - Environment / Shock & Vibration**
- **Chroma / 致茂 (桃園) - HALT**
- **Intertek / 全國公證 (內湖) - Environment**
- **IST / 宜特 (新竹) - Environment**
- **KDI / 金頓 (深坑) - Shock & Vibration**
- 出差清單:
https://forms.office.com/Pages/ResponsePage.aspx?id=KAZu2oP8r0yd0nMGHLqxZ9bTzd6QYnxLgU_fzic9VaxUOVQ2RjFNNDJYQ1M5OVczNlZKVIhGUEhOVy4u

常見部門與職位

- **AM (Account Manager) or Sales**
- **PM (Product Manager)**
 - PjM (Project Management)
- **R&D (Research & Design)**
 - EE (Electronic Engineering) / BIOS / BMC
 - ME (Mechanical Engineering) / Structure / Thermal
- **QT (Quality Testing) / QE (Quality Engineering)**
- **SIT (System Integration Test)**
- **MFG (Manufacturer)**

產品驗證階段

- **NPI (New Product Introduction)**
- **POC > EVT > DVT > PVT > MP > EOL**
 - Proof of Concept
 - Engineering Validation Test ***
 - Design Validation Test **
 - Production Validation Test *
 - Mass Production
 - End of Life
- **2nd Source Regression / DoE (Design of Experiments)**

產品與可靠度

Product and Reliability

Copyright and Confidentiality Notice

This presentation and its content is copyright of Wiwynn Corporation. All rights reserved. The content may contain confidential information of Wiwynn Corporation. Any redistribution or reproduction of part or all of the contents in any form is prohibited unless otherwise agreed. The receiving party may not, except with our express written permission, distribute or commercially exploit the content.



伺服器組成

- **硬體**

- Motherboard, CPU, DIMM, Storage, Add-on Cards
- PSU, Chassis, Heatsink, Fan, Air Duct

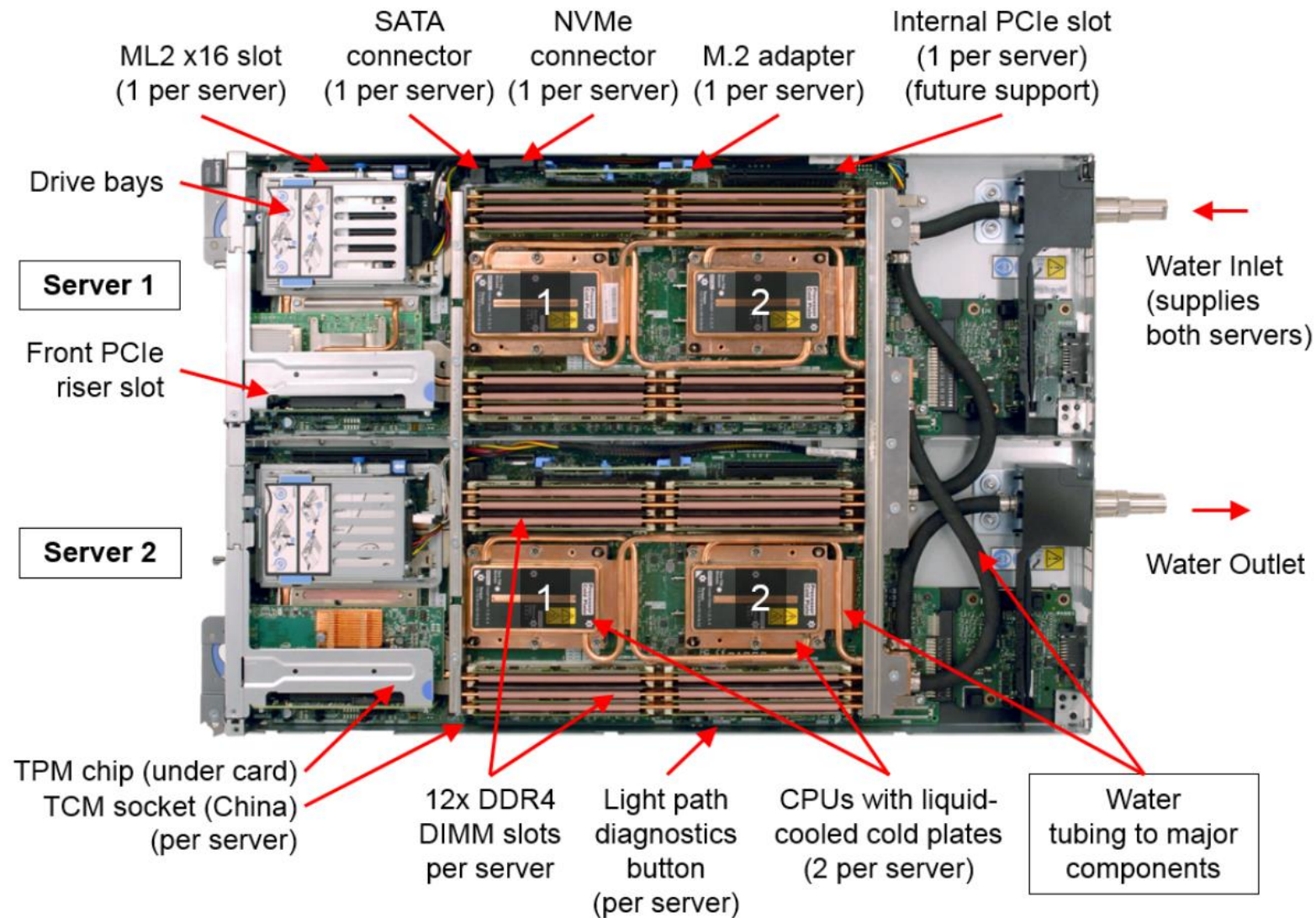
- **韌體**

- BIOS (Basic Input/Output System)
- BMC (Board Management Controller)

- **軟體**

- OS (Operating System) - Windows, Linux
- Stress Test Tools - Prime95, FIO, iPerf

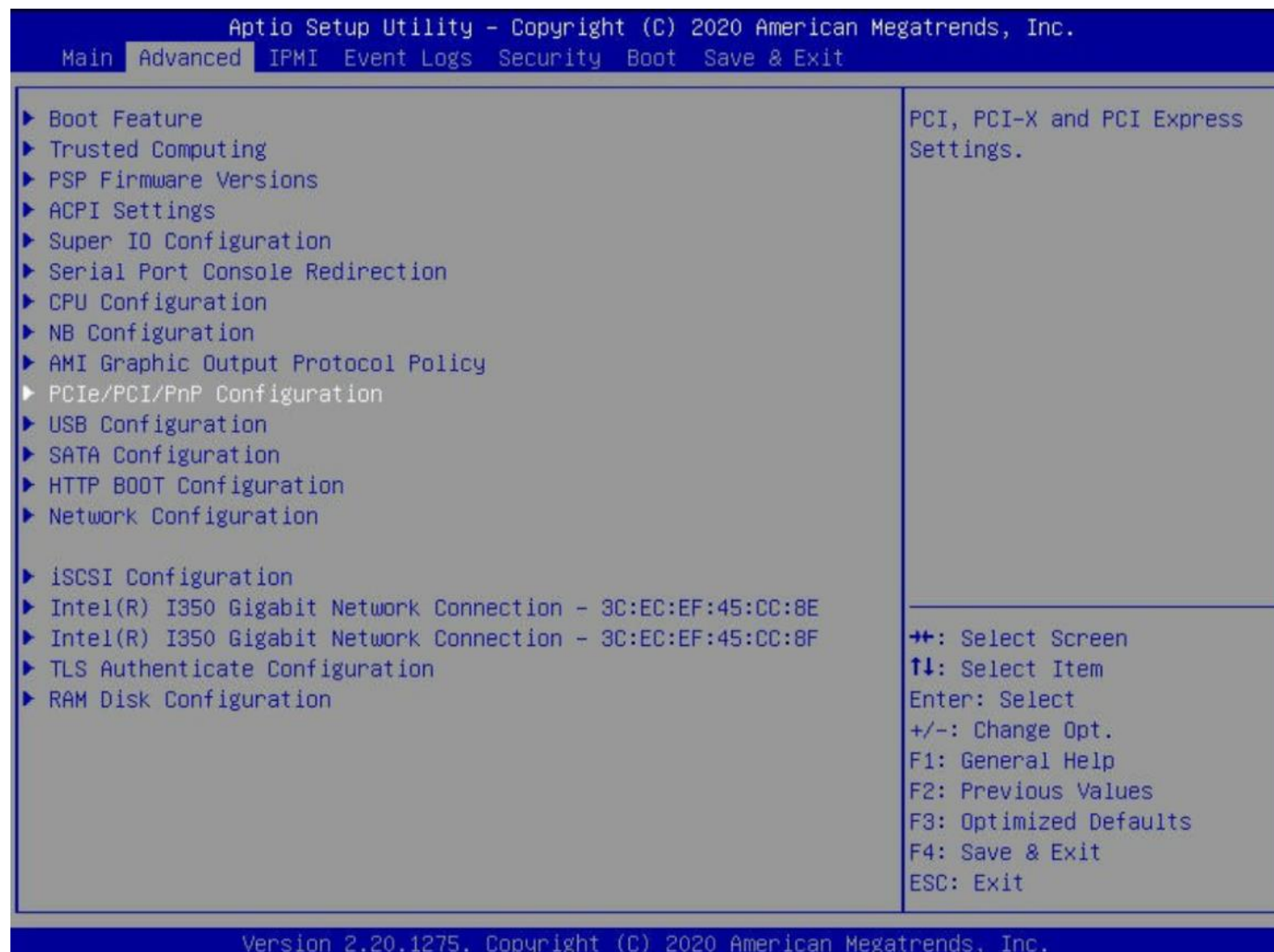
Hardware



Copyright and Confidentiality Notice

This presentation and its content is copyright of Wiwynn Corporation. All rights reserved. The content may contain confidential information of Wiwynn Corporation. Any redistribution or reproduction of part or all of the contents in any form is prohibited unless otherwise agreed. The receiving party may not, except with our express written permission, distribute or commercially exploit the content.

BIOS



BMC/IPMI

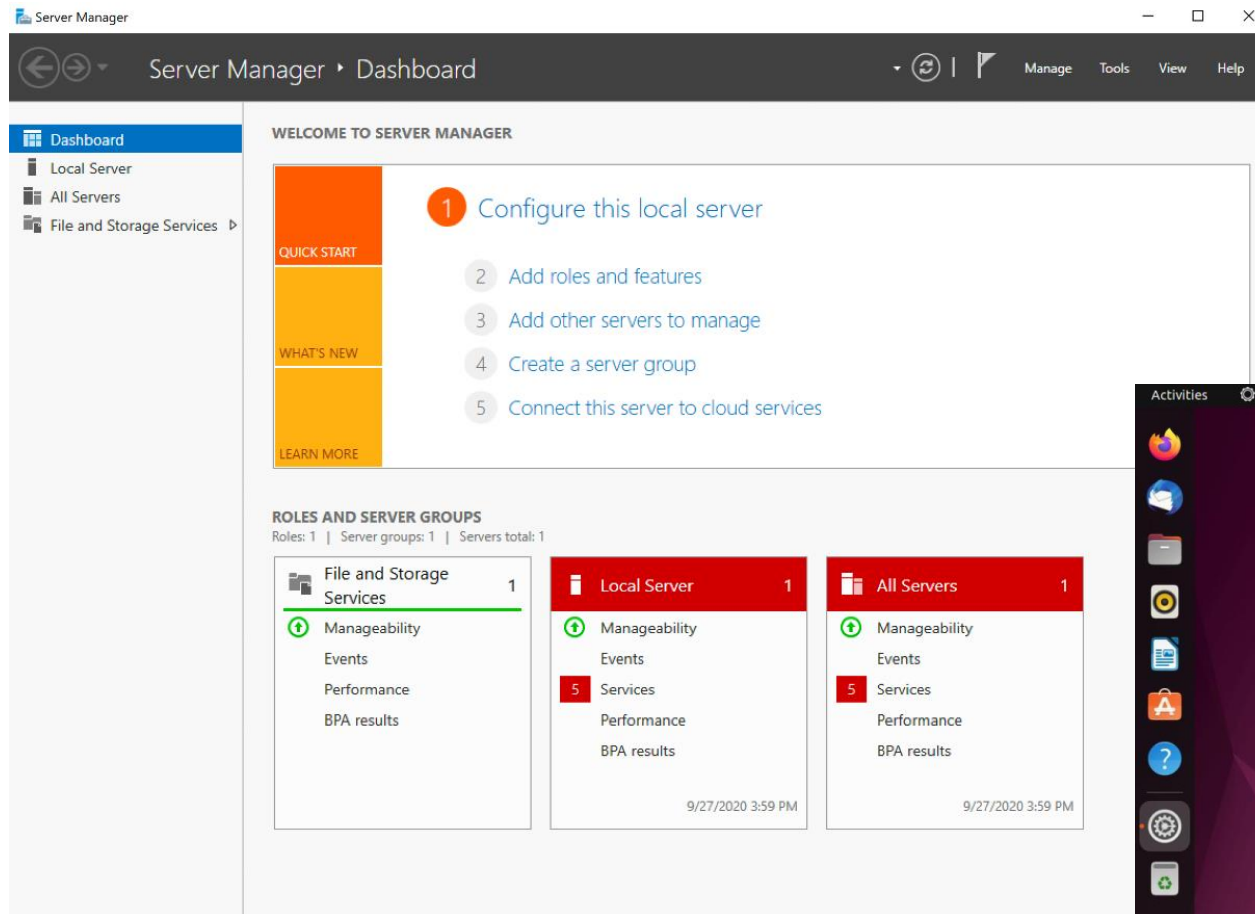
HSC0 Temp	41 degrees C	ok
FPGA_S4_HSC_TMP	38 degrees C	ok
FPGA_S4_DIE_TMP	58 degrees C	ok
FPGA_S4_AMB_TMP	40 degrees C	ok
FPGA_S4_NIC_TMP	74 degrees C	ok
FPGA_S4_POWER	35 Watts	ok
CPU_ERROR	0x00	ok
P0VPP_ABC	2.56 Volts	ok
P0VPP_DEF	2.56 Volts	ok
P1VPP_GHJ	2.56 Volts	ok
P1VPP_KLM	2.56 Volts	ok
Temp_CPU0	48 degrees C	ok
Temp_PCH	39 degrees C	ok
Temp_Inlet	28 degrees C	ok
Temp_Outlet	37 degrees C	ok
Temp_CPU1	55 degrees C	ok
Temp_DIMM_A	42 degrees C	ok
Temp_DIMM_B	45 degrees C	ok
Temp_DIMM_C	49 degrees C	ok
Temp_DIMM_D	38 degrees C	ok
Temp_DIMM_E	37 degrees C	ok
Temp_DIMM_F	37 degrees C	ok
P3V3	3.37 Volts	ok
P5V	5.08 Volts	ok
BMC Health	0x00	ok
Fan_0	7326 RPM	ok
Fan_1	7437 RPM	ok
Fan_2	7437 RPM	ok
Fan_3	7437 RPM	ok
Fan_4	7548 RPM	ok
Fan_5	7437 RPM	ok
CPU0_VccInPIN	35 Watts	ok
CPU1_VccInPIN	32.50 Watts	ok
CPU0_VccInPOUT	32.50 Watts	ok
CPU1_VccInPOUT	32.50 Watts	ok

Sensor Reading

SEL (System Event Log)

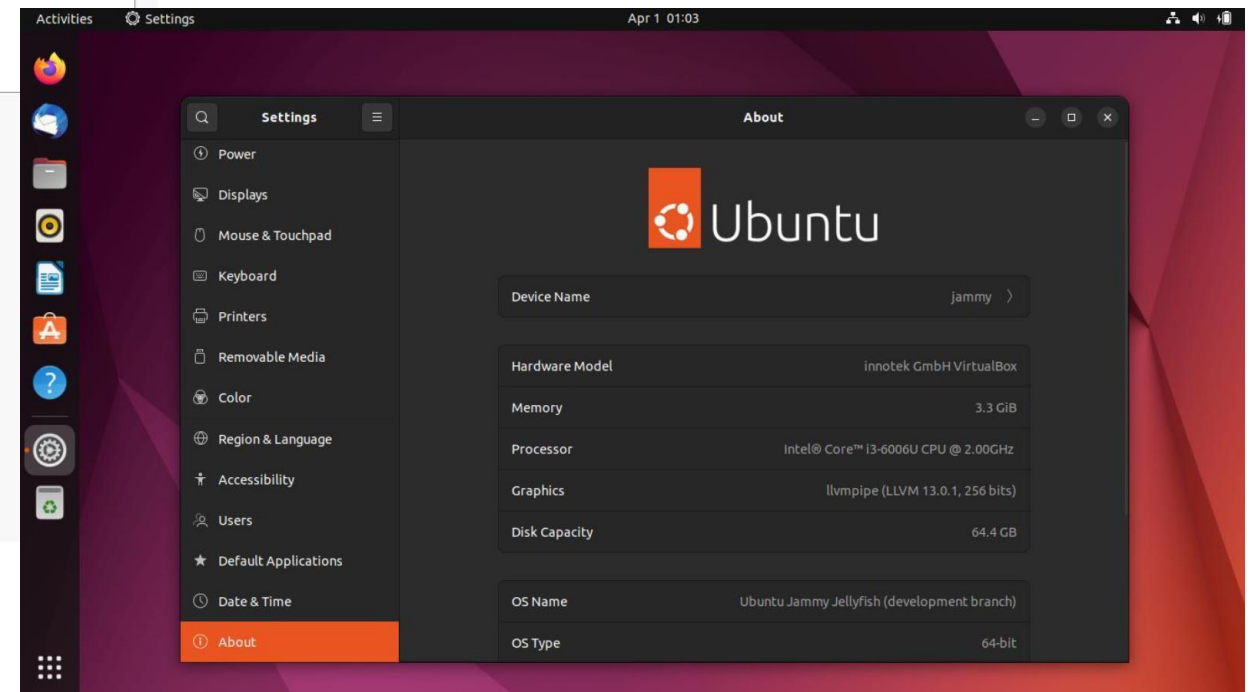
```
134 | 11/03/2009 | 14:55:15 | Voltage #0x6b | Lower Critical going low
135 | 11/03/2009 | 14:55:19 | FRU Hot Swap #0x02 | Transition to M4 | Asserted
136 | 11/03/2009 | 14:55:20 | FRU Hot Swap #0x03 | Transition to M4 | Asserted
137 | 11/03/2009 | 14:55:21 | FRU Hot Swap #0x01 | Transition to M4 | Asserted
138 | 11/03/2009 | 14:55:29 | Version Change #0x51 | Firmware or software change detected | Asserted
139 | 11/03/2009 | 14:55:33 | Reset #0x43 | State Asserted
13a | 11/03/2009 | 15:08:27 | System ACPI Power State #0x4e | SO/GO: working | Asserted
13b | 11/03/2009 | 15:56:59 | Reset #0x43 | State Asserted
13c | 11/03/2009 | 15:56:59 | Reset #0x43 | State Asserted
13d | 11/03/2009 | 15:57:33 | Reset #0x43 | State Asserted
13e | 11/03/2009 | 15:59:00 | Reset #0x43 | State Asserted
13f | 11/03/2009 | 16:18:22 | Reset #0x43 | State Asserted
140 | 11/03/2009 | 16:19:16 | System ACPI Power State #0x4e | SO/GO: working | Asserted
141 | 11/03/2009 | 16:22:57 | Reset #0x43 | State Asserted
142 | 11/03/2009 | 16:22:57 | Reset #0x43 | State Asserted
143 | 11/03/2009 | 16:23:58 | System ACPI Power State #0x4e | SO/GO: working | Asserted
144 | 11/03/2009 | 16:26:13 | Reset #0x43 | State Asserted
145 | 11/03/2009 | 16:26:14 | Reset #0x43 | State Asserted
146 | 11/03/2009 | 16:26:33 | Reset #0x43 | State Asserted
147 | 11/03/2009 | 16:27:45 | Reset #0x43 | State Asserted
148 | 11/03/2009 | 16:29:26 | System ACPI Power State #0x4e | SO/GO: working | Asserted
149 | 11/03/2009 | 20:56:15 | IPMB-O Status #0x53 | IPMB-A enabled, IPMB-B disabled | Asserted
14a | 11/03/2009 | 20:56:26 | IPMB-O Status #0x53 | IPMB-A enabled, IPMB-B enabled | Asserted
```


OS (Operating System)



Windows - Server 2019

Linux - Ubuntu



Environment Test Cases

- BAT (Baseline Acceptance Test)
- MTBF (Mean Time Between Failure)
- CMTBF (Calculated MTBF)
- RDT / DMTBF (Demonstrated MTBF)
- HALT (High Accelerated Life Test)
- HTHH (High Temperature / High Humidity)
- Four Corner Test
- AC Cycling Test / DC Cycling Test

其他資訊

Other Information

Copyright and Confidentiality Notice

This presentation and its content is copyright of Wiwynn Corporation. All rights reserved. The content may contain confidential information of Wiwynn Corporation. Any redistribution or reproduction of part or all of the contents in any form is prohibited unless otherwise agreed. The receiving party may not, except with our express written permission, distribute or commercially exploit the content.




申請加班

Download Link: <https://github.com/Monkieff/NEOdocuments>

- 1. 填好加班申請 Excel
- 2. 發 mail 給 TK 告知需要申請加班
 - 附上填好的 Excel 和內容表格截圖
 - 新增一個「同意/拒絕」按鈕
- 3. 等 TK 同意後，上 EIP 申請加班

Hi TK,

 QT Overtime Application_Summary_20220524.xlsx
196 KB

我於上週二因架設 C2080 2nd Qual #11 專案，以及週末製作 C2082 Test Report，需要申請加班 4 小時，感謝！

Over Time Application form						
Dept. : QT (BEQ200)				Name: Hugo SF Tsai		
Project : C2080 2nd Qual #11 / C2082 AFD				Function: Test Engineer		
Request From : TK LEE/QT						
Branch of Work	Worker	Date	Hours		Description of Work	Approval
Validation Validation Test & Debugging	Hugo SF Tsai	2022/5/17	17:00	19:00	C2080 Regression - Baseline Test Setup	
Validation Validation Test & Debugging	Hugo SF Tsai	2022/5/21	13:00	15:00	C2082 AFD - Test Report Creating	

其他參考文件

- **Setup Guide**

- C2080 BAT and RDT Setup Guide
- C2030 Cold and Hot Test Setup Guide (for IST)
- F2010 Thermal Cycling Test Setup Guide (for IST)
- S2260 Cold and Hot Test Setup Guide (for IST)

- **Project Document**

- C2195 Reliability Validation Test Plan
- C2195 EV2 Cross Table
- C2195 EV2 Validation Waterflow
- C2195 EV2 FW Table

Download Link: <https://github.com/Monkieff/NEOdocuments>

推薦資訊

- **鳥哥 (Linux 介紹與教學)**
 - <https://linux.vbird.org/>
- **工作熊 (科技業職稱和專有術語解釋)**
 - <https://www.researchmfg.com/about/>
- **Benjr (Linux Test Tools 介紹與用法)**
 - <https://benjr.tw/>
- **SS64 (Linux/CMD/Powershell 指令用法整理)**
 - <https://ss64.com/>
- **CMD 初學者之卷 (Windows CMD 介紹與教學)**
 - <https://lnpcd.blogspot.com/2012/09/00.html>
- **批次檔精要學習手冊 (Windows CMD 介紹與教學)**
 - <https://peterju.gitbooks.io/cmddoc/content/chapter1.html>



Thanks!